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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,822	10/07/2004	Donald R. Moody	018300-001728	5821

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MOORE & VAN ALLEN PLLC
P.O. BOX 13706
Research Triangle Park, NC 27709

EXAMINER

PAINTER, BRANON C

ART UNIT	PAPER NUMBER
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3633

MAIL DATE	DELIVERY MODE
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05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,822	Applicant(s) MOODY ET AL.	
	Examiner BRANON C. PAINTER	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/07/05 & 04/14/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 1-12, 14-18) in the reply filed on 03/17/08 is acknowledged. The traversal is on the ground(s) that the search is not unduly burdensome. This is found persuasive because the same structure must be found to meet the dependent claim limitations of Group I. The restriction requirement is WITHDRAWN.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 01/07/05 and 04/14/2008 are being considered by the examiner.

Claim Objections

3. Claims 8 and 9 are objected to because of the following informalities:
 - a. Claim 8, "thermal component." For the purpose of this examination, the examiner presumes this should read "thermal framing component."
 - b. Claim 9, "wherein the the elongated." For the purpose of this examination, the examiner presumes this should read "wherein the elongated."
 - c. Appropriate correction is required for all preceding objections.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 4 is rendered vague and indefinite by the phrase "a plurality of thermal framing components interposed between studs." It is unclear whether the claim requires multiple framing components between each successive stud, or if one framing component between each successive stud, with multiple framing components in the system, meets the limitation. For the purposes of this examination, the examiner presumes that one thermal framing component between each stud, with a plurality of framing components included in the system, meets the claim limitations.
7. Claim 16 is an improper hybrid. A method claim may depend from an apparatus claim, but an apparatus claim may not depend from a method claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

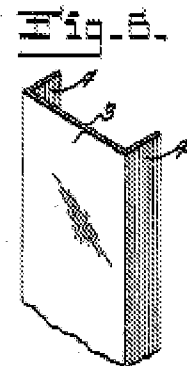
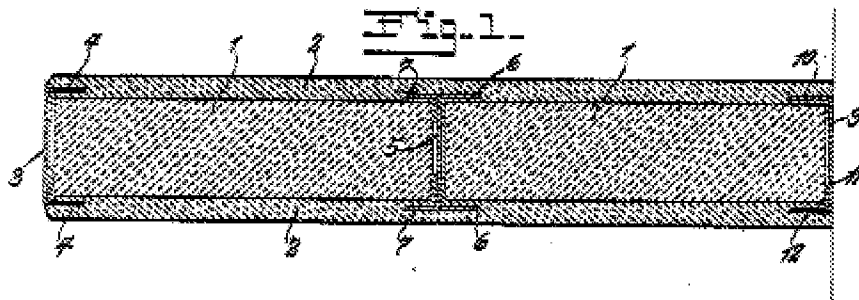
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Ryan (1,867,329).

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10. Regarding claim 13, Ryan discloses an end cap having all of the applicant's claimed structure, including:

- a. An approximately vertical web (3, Fig. 1, 6).
- b. Flanges projecting from each edge at approximately right angles to one side of the web (4).
- c. An approximately vertical edge of rigid insulation disposed between the flanges (1).
- d. The examiner notes the phrase "for use in....edge" is considered a recitation of intended use. As such, it is given little patentable weight. That said, the tile 1 disclosed by Ryan could be considered rigid insulation disposed between the flanges.



Reproduced from Ryan

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

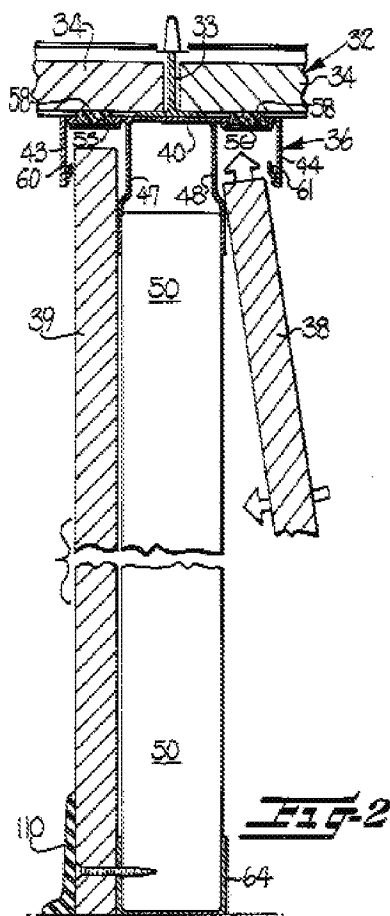
13. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carver (4,361,994).

a. Carver discloses a wall system including:

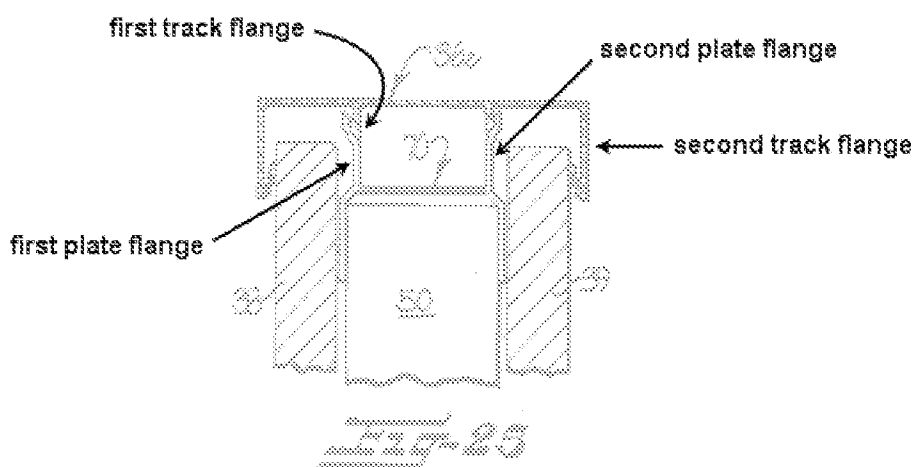
- i. A top track (36e) with horizontal web, first flange, and second flange extending down at right angles (amended Fig. 25).
- ii. A top plate (70) with horizontal web, first flange, and second flange extending down at approximately right angles (amended Fig. 25). The examiner notes that the flanges are considered to be the entire left and right hand members of plate 70, and that these members do extend downward as claimed.
- iii. Wherein the top plate is disposed in the top track such that the webs and first flanges are in close and complimentary relation and an opening is formed between the second flanges (amended Fig. 25).

- iv. Vertical studs mounted to and extending between the top and bottom plates, wherein the top and bottom plates oppose each other (50, Fig. 2, 25).
- b. Carver does not expressly disclose a bottom track or plate extending upwardly in the same structural manner as the top track and plate.
- c. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the bottom tracking of Carver by replacing it with the same tracking used on the top of the wall system (orienting it, as would be obvious from the orientation of bottom tracking 64, in an upward-facing manner), in order to provide a wall system whose wallboards can be attached without the use of fasteners.

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Reproduced from Carver



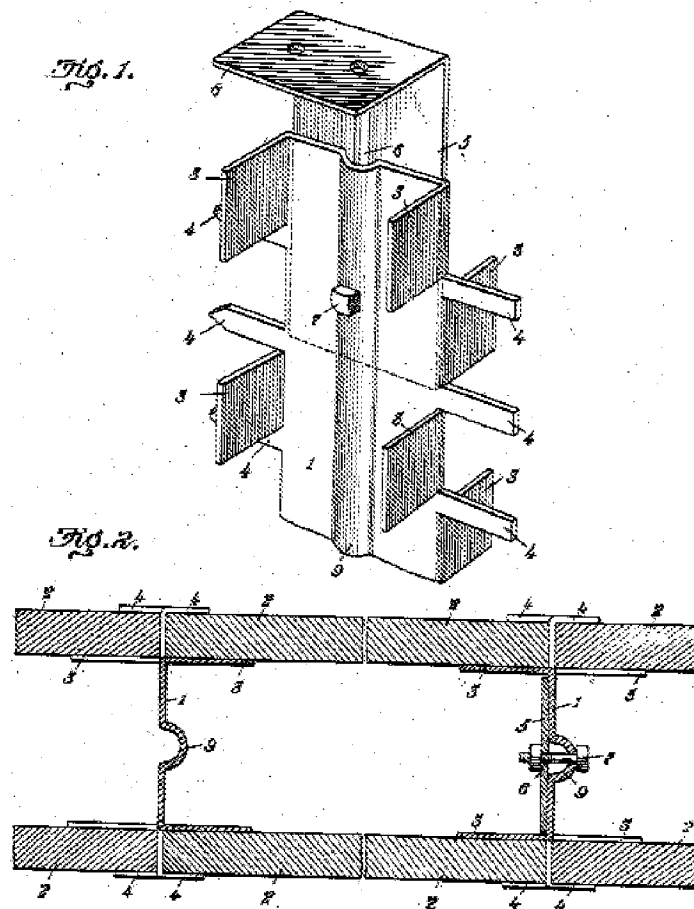
Reproduced from Carver (amended)

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14. Regarding claim 2, Carver as modified above further discloses rigid insulation between the top and bottom tracks, including two horizontal edges disposed in the longitudinal openings and two vertical edges (39, Fig. 25). The examiner notes that 39 is disclosed as a wallboard panel. However, wallboard panels have a rigidity and insulative properties, and as such meet the claim limitations.
15. Claims 3-5, 7, 9, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carver (4,361,994) in view of Caldwell (1,074,242).
16. Regarding claim 3:
 - a. Carver discloses a wall system as set forth above.
 - b. Carver does not expressly disclose a vertical framing component extending between the top and bottom plates including an elongated planar web with projections from each edge at right angles in both directions such that a slot is formed on each side of the web.
 - c. Caldwell discloses a vertical framing component extending between the top and bottom plates (1, Fig. 1) including an elongated planar web (Fig. 1) with projections from each edge at right angles in both directions (3, 4) such that a slot is formed on each side of the web (slot formed between 3 and 4 for receiving insulating boards on both sides, Fig. 2; the examiner notes a slot is also formed between two tabs on separate framing elements which face one another).

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- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the wall system of Carver by adding panel-holding framing components as taught by Caldwell, in order to provide the panels of Carver with support and alignment at their vertical edges.



Reproduced from Caldwell

17. Regarding claim 4:

- a. Carver/Caldwell as modified above discloses a wall system.
- b. Carver/Caldwell does not expressly disclose that the framing components are interposed between studs.

- c. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to position the panel-holding framing components of Caldwell between studs of Carver, since it is well-known that studs are positioned at least at both edges of a wall for support, meaning that any framing component placed in the wall of Carver would necessarily be interposed between two studs.
18. Regarding claim 5, Carver/Caldwell as modified above further discloses a plurality of thermal framing components mounted to the second flange of the top and bottom plates (the plurality of framing components 1 of Caldwell are indirectly mounted to second flanges of Carver via panels 39).
19. Regarding claim 7, Carver/Caldwell as modified above further discloses vertical edges of panels disposed in a slot of the framing component (Caldwell: 2 in slot between 3 and 4, Fig. 2; when used in combination with Carver as discussed above, Carver's panels 39 would be disposed in this slot).
20. Regarding claim 9, Carver/Caldwell as modified above further discloses an elongated planar web with longitudinal axis, a second edge parallel the axis a first and second side (Caldwell: 1, Fig. 1), with first and second tabs extending from the first edge approximately 90 degrees from the first and second sides, respectively (3, 3, Fig. 1), and a third tab extending from the second edge approximately 90 degrees from the second side (3, 3, Fig. 1).
21. Regarding claim 11, Carver/Caldwell as modified above discloses a wall system with top and bottom plates and tracks, vertical studs, framing components, and

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insulation sheets as discussed with respect to claims 1, 2, 3, and 9 above, and further discloses a framing component with a fourth tab extending from the second edge approximately 90 degrees from the first side (Caldwell: 3, Fig. 1), with the first and fourth tabs forming a slot, and the second and third tabs forming a slot (Fig. 1).

22. Regarding claims 14-16, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.

23. Claim 8 and 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carver/Campbell as applied to claims 3-5, 7, 9, 11, and 14-16 above, and further in view of Poliquin (2001/0004820).

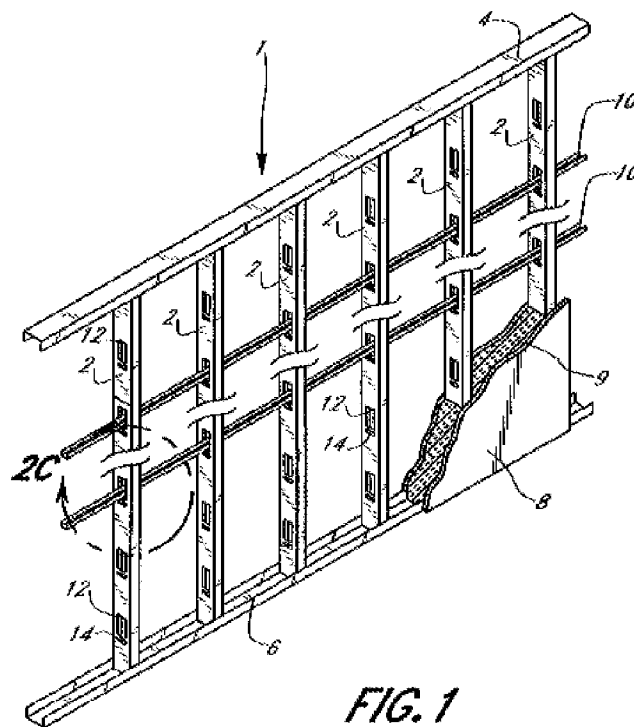
24. Regarding claim 8:

- a. Carver/Campbell discloses a wall system as set forth above.
- b. Carver/Campbell does not expressly disclose that the studs and framing components are mounted to horizontal blocking.
- c. Poliquin discloses a plurality of vertical components mounted to horizontal blocking approximately halfway between top and bottom plates (2 mounted to 10 halfway between 4 and 6, Fig. 1). The mounting is facilitated by cut-outs 12 in the vertical members.
- d. The examiner further notes motivation for combining the references as set forth in Poliquin ([0005]).
- e. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the studs and framing components of

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Carver/Campbell by providing them with cut-outs midway along their height and mounting horizontal blocking through the cut-outs as taught by Poliquin, in order to connect and bridge the studs and framing components, improving the wall system's strength and resistance to buckling.

- f. The examiner further notes that it would have been an obvious matter of design choice to modify Carver/Campbell by including horizontal blocking halfway between the top and bottom plates, since it is notoriously well-known in the art to use this structure to reinforce and strengthen the framework of a wall system.



Reproduced from Poliquin

25. Regarding claim 17, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.

26. Claims 10, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carver/Campbell as applied to claims 3-5, 7, 9, 11, and 14-16 above, and further in view of Ryan (1,867,329).

27. Regarding claims 10 and 12:

- a. Carver/Campbell discloses a wall system as set forth above.
- b. Carver/Campbell does not expressly disclose a thermal end cap including an approximately vertical web with flanges projecting at right angles and one edge of rigid insulation disposed between the flanges.
- c. Ryan discloses a thermal end cap (Fig. 1, 6) including an approximately vertical web (3) with flanges projecting at right angles (4) and one edge of rigid insulation disposed between the flanges (1).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the wall system of Carver/Campbell by including a vertical cap as taught by Ryan, in order to provide a protective cover for a vertical edge of the wall system.

28. Regarding claim 18, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.

29. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carver (4,361,994) in view of Rutkowski (4,435,936).

30. Regarding claim 3:

- a. Carver discloses a wall system as set forth above.
- b. Carver does not expressly disclose a vertical framing component extending between the top and bottom plates including an elongated planar web with projections from each edge at right angles in both directions such that a slot is formed on each side of the web.
- c. Rutkowski discloses a wall system with a stud connected to a vertical framing component extending between the top and bottom plates (10, Fig. 2; amended Fig. 5) including an elongated planar web (amended Fig. 5) with projections from each edge at right angles in both directions (64, 22) such that a slot is formed on each side of the web (slot receiving 68).
- d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace the studs of Carver with connected stud and panel-holding framing components as taught by Rutkowski, in order to provide the panels of Carver with support and alignment at their vertical edges.

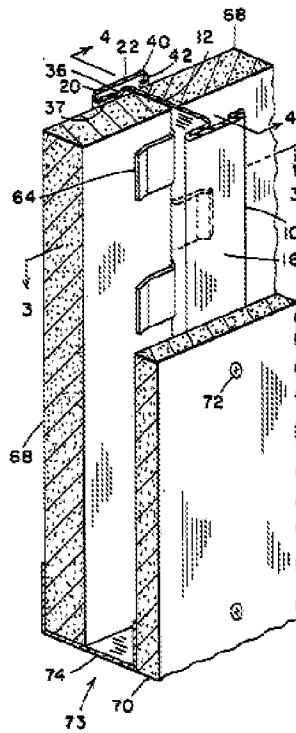


Fig. 2

Reproduced from Rutkowski

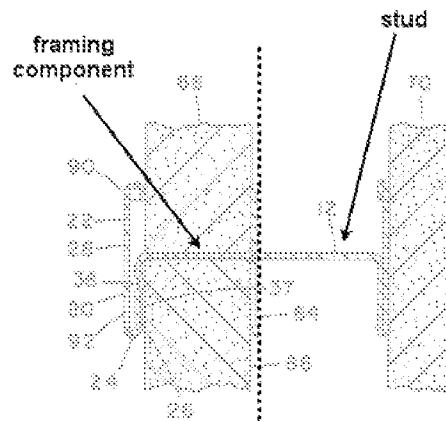


Fig. 5

Reproduced from Rutkowski (amended)

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31. Regarding claim 6, Carver/Rutkowski as amended above further discloses a plurality of thermal framing components mounted to steel studs (connected framing component and stud, amended Fig. 5).

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is (571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/B. C. P./
Examiner, Art Unit 3633
05/06/08

/Brian E. Glessner/
Supervisory Patent Examiner, Art Unit 3633